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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/435,504	11/06/1999	DENNIS SUNGA FERNANDEZ	FERN-P006	5319

22877 7590 09/09/2002

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EXAMINER

MORGAN, ROBERT W

ART UNIT PAPER NUMBER

3626

DATE MAILED: 09/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/435,504

Applicant(s)

FERNANDEZ, DENNIS SUNGA

Examiner

Robert W. Morgan

Art Unit

3626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 & 5-8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-12, drawn to an automated transaction method using bioinformatics regarding insurance, classified in class 705, subclass 4.
  - II. Claims 13-18, drawn to a secure network client, classified in class 709, subclass 203.
  - III. Claims 19-20, drawn to data structure with encoding, classified in class 707, subclass 102.

The inventions are distinct, each from the other because of the following reasons:

Inventions I, II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, Invention I has separate utility such as identifying and evaluating bioinformatics risk values to provide insurance coverage; and Invention II has separate utility such as using a network client to access, store and process transaction over a network. Invention III has separate utility such as using data structure to identify genetic sequences. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification and/or because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Dennis Fernandez et al. on 27 August 2002 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-

Art Unit: 3626

12. Affirmation of this election must be made by applicant in replying to this Office action.

Claims 13-20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claim 1 is rejected under 35 U.S.C. 102(a) as being anticipated by U.S. Patent No. 5,970,500 to Sabatini et al.

As per claim 1, Sabatini et al. teaches relational database system for storing and analyzing biomolecular sequences information together with biological annotations detailing the source and interpretation of the sequence data (see: column 2, lines 8-11). Sabatini et al. further teaches a software system that allows users to determine the relative position of a selected gene sequence within a genome (reads on “determining a bioinformatic value associated with a user” and “transacting with user according to the bioinformatic value”) (see: column 2, lines 13-15).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,970,500 to Sabatini et al. in view of U.S. Patent No. 4,975,840 to DeTore et al.

As per claim 2, Sabatini et al. teaches relational database system for storing and analyzing biomolecular sequences information together with biological annotations detailing the source and interpretation of the sequence data (see: column 2, lines 8-11).

Sabatini et al. fails to explicitly teach the claimed likelihood or risk of the user having or develop a genetically-based medical or physiological condition, wherein the transaction step comprises providing the user with an insurance policy to cover the occurrence of the genetically-based condition.

DeTore et al. teaches a system for evaluating the insurability of a potentially insurance risk using a database for storing information (see: abstract). DeTore et al. also teaches an underwriting knowledge base (24, Fig. 1) used to evaluate an applicant's information such as medical condition (e.g. asthma, smoking, drinking, etc...) with regards to underwriting a given risk to an insurance policy (see: column 5, lines 19-52 and column 7, lines 24-37).

One of ordinary skill in the art at the time the invention was made would have found it obvious to include the system for evaluating the insurability as taught by DeTore et al. within the relational database system for storing and analyzing biomolecular sequences information as taught by Sabatini et al. with motivation of allow insurance companies to protect people and property from potential losses or injury (see: DeTore et al. column 1, lines 18-20).

As per claim 3, DeTore et al. teaches a system for evaluating the insurability of a potentially insurance risk using a database for storing information (see: abstract). In addition, DeTore et al. teaches a term "problem" to generally mean an element of information (e.g., facts

Art Unit: 3626

and conditions such as age, a medical condition, a hazardous avocation, a smoking or drinking habit, etc.) stored in application database (20, Fig. 1), which impacts either positively or negatively upon the relative mortality of the proposed insured (see: column 5, lines 40-60). Additionally, the term "impairment" generally means an element of information (e.g., the impacts of aging, various medical conditions, avocations, smoking, drinking, etc. on the mortality of known populations) stored in underwriting knowledge base (24, Fig. 1), which relates to or corresponds with the information contained in application database (20, Fig. 1) (see: column 5, lines 40-60). The Examiner considers the term "impairment" to include emotional conditions that impact the insurability of a user.

As per claim 4, the combined teachings of Sabatini et al. and DeTore et al. fail to explicitly teach the transaction step comprises providing the user with a promotional offer or bid to serve the genetically-based condition.

The combined teachings of Sabatini et al. and DeTore et al. teach a system for evaluating the insurability of a potentially insurance risk using a database for storing information (see: DeTore et al. abstract). In addition, teachings of Sabatini et al. and DeTore et al. teach a term "problem" to generally mean an element of information (e.g., facts and conditions such as age, a medical condition, a hazardous avocation, a smoking or drinking habit, etc.) stored in application database (20, Fig. 1), which impacts either positively or negatively upon the relative mortality of the proposed insured. Additionally, teachings of Sabatini et al. and DeTore et al. teach a relational database system for storing and analyzing biomolecular sequences information together biological annotations detailing the source and interpretation of the sequence data (see: Sabatini et al. column 2, lines 8-11). Therefore, it would have been obvious to a person of

Art Unit: 3626

ordinary skill in the art at the time the invention was made to modify the teaching of Sabatini et al. and DeTore et al. to include a transaction step comprises providing the user with a promotional offer or bid to serve the genetically-based condition with the motivation of allowing high risk insurance customers the opportunity to receive a reasonable insurance plan.

As per claim 5, Sabatini et al. teaches the claimed bioinformatic value comprises a classification of the user according to a user-authorized mask, such mask comprising a subset of a genetic sequence associated with the user. This feature is met by the masking used to ignore certain genetic sequences in order to identify a gene cluster (see: column 8, lines 65 to column 9, lines 7).

As per claim 6, DeTore et al. teaches statistical profiling relating to the users problem or impairment, this profiling is developed when a statistically proven correlation affecting the final rating or weight applicable to a particular problem or impairment has been found to exist, and the subject correlation is not reflected in the treatment of the problem or impairment in the underwriting database (24, Fig. 1). For example, a cardiovascular profile has been developed which adjusts the overall mortality risk on the basis of factors shown by studies to be predictive of premature mortality from arteriosclerotic heart disease (i.e., factors such as high cholesterol and high blood pressure). Additional profiles can be added as statistical correlations warrant (see column 16, lines 20-53 and Table).

As per claim 7, DeTore et al. teaches the claimed transaction for the user according a rule set that is applicable to a plurality of users in a temporal or jurisdictional grouping on a non-discriminatory basis. This feature is met by the rules for evaluating risks that provide some degree of customization of the system. For example, files of installation specific variables within

Art Unit: 3626

database (22, Fig. 1) which may be subject to modification include, but are not limited to, age and amount limits for ordering examinations, levels for inspection reports, and levels for blood test workups (see: column 4, lines 36-53).

As per claim 8, DeTore et al. teaches the claimed determining other bioinformatic value associated with user; and modifying the transaction with user according to the other bioinformatic value. These limitation are met by files of installation specific variables within database (22, Fig. 1) which may be subject to modification include, but are not limited to, age and amount limits for ordering examinations, levels for inspection reports, and levels for blood test workups (see: column 4, lines 36-53).

As per claim 9, Detore et al. teaches the claimed other bioinformatic value comprises an increase and decrease of likelihood or risk of the user having or developing the genetically-based condition. This feature is met by a system for evaluating the insurability of a potentially insurance risk using a database for storing information (see: abstract). In addition, DeTore et al. teaches a term "problem" to generally mean an element of information (e.g., facts and conditions such as age, a medical condition, a hazardous avocation, a smoking or drinking habit, etc.) stored in application database (20, Fig. 1), which impacts either positively or negatively upon the relative mortality of the proposed insured (see: column 5, lines 40-60).

As per claim 10, the bioinformatic value is stored confidentially in a database associated with the server, the server transacting remotely with the user through the network to enable a medical service for the user. This limitation is met by the computer system that includes a terminal (10, Fig. 1), a memory unit (12, Fig. 1), a central processing unit (CPU) (14, Fig. 1) an input device (16, Fig. 1) and a display (18, Fig. 1) and alternatively, the terminal (10, Fig. 1) may



Art Unit: 3626

be remotely located and also accessed via telephone or other communication lines (see: column 3, lines 63 to column 4, lines 8). Computers suitable for use in this invention include personal computers (such as an IBM Personal System-2, Model 80), other micro-computers, mini-computers, mainframe computers, or networks or combinations of any of the above (see: column 3, lines 63 to column 4, lines 8). This suggests that a network with a server running computer software to control access to files and the network is used to operate the system. In addition, underwriters must logon to the computer system with a password to satisfy the applicable security measures (see: column 9, line 3-11).

As per claim 11, Detore et al. teaches the claimed bioinformatic value is associated with other user, and the transaction according to the bioinformatic value occurs separately with both users on a confidential and non-discriminatory basis. This feature is met by the expert module that may include a regression analysis, a discriminate function, loglinear analysis, linear programming, or any other technique which may be used by experts in analyzing and evaluating the risks associated with a particular problem or situation (see: column 5, lines 4-17).

Additionally, underwriters must logon to the computer system with a password to satisfy the applicable security measures (see: column 9, line 3-11). This suggest that users are individually identified according to password and an expert module using certain programming technique such as the discriminate function assures the integrity of the information regarding the analyzing and evaluating the risks associated with a particular medical condition (see: column 5, lines 5-28).

As per claim 12, DeTore et al. fails to explicitly teach the claimed bioinformatic value is authentically generated by a portable user device, the transaction updating a user account, which is accessible by the user device.

Since DeTore et al. teaches computer system that includes a terminal (10, Fig. 1), a memory unit (12, Fig. 1), a central processing unit (CPU) (14, Fig. 1) an input device (16, Fig. 1) and a display (18, Fig. 1) and alternatively, the terminal (10, Fig. 1) may be remotely located and also accessed via telephone or other communication lines (see: column 3, lines 63 to column 4, lines 8). Computers suitable for use in this invention include personal computers (such as an IBM Personal System-2, Model 80), other micro-computers, mini-computers, mainframe computers, or networks or combinations of any of the above (see: column 3, lines 63 to column 4, lines 8). One of ordinary skill in the art at the time invention was made would have found it obvious to modify the computer system as taught by DeTore et al. to include a lap top computer or portable device to access and update user information with the motivation of allowing a user fast and quick access to available information over a network.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

In related art (5,809,478) Greco et al. discloses a method of controlling a computer network to render information needs and risk evaluation decision including match profiling.

In related art (6,287,254) Dodds provides Laboratory test data that is analyzed in relation to the health assessment data of an animal together with genetic data related to the same animal.

Art Unit: 3626

In related art (6,026,397) Sheppard discusses a system for analyzing data files containing a plurality of data records with each data record containing a plurality of parameters.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W. Morgan whose telephone number is 703-605-4441.

The examiner can normally be reached on 8:30 a.m. - 5:00 p.m. Mon - Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas can be reached on 703-305-9588. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

RWM  
rwm  
August 27, 2002

  
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